Author Index

Aaron, J.E., see Francis, R.M., 347
Andersson, G.N., see Ek-Rylander, B., 309
Avioli, L.V., see Tabuchi, C., 359

Baker, R.L., see Ramp, W.K., 117
Barker, S., see Hewison, M., 323
Bellon, M., see Nordin, B.E.C., 21
Bijvoet, O.L.M., see Valkema, R., 183
Binderman, I., see Tabuchi, C., 359
Boass, A., see Clark, S.A., 291
Brennan, A., see Hewison, M., 323
Bridges, A., see Nordin, B.E.C., 21
Brown, E.M. and Chen, C.J. Calcium, magnesium and the control of PTH secretion, 249
Burton, D.W., see Deftos, L.J., 303

Carpenter, T.O. Mineral regulation of vitamin D metabolism, 259
Charles, P., see Mosekilde, L., 279
Chen, C.J., see Brown, E.M., 249
Cheng, P.-T., see Grynpas, M.D., 1
Christiansen, C., see Pødenphant, J., 77
Clark, S.A., Boass, A. and Toverud, S.U. Adverse effects of a high-glucose diet on body weight and plasma calcium and 1,25-dihydroxyvitamin D_3 levels in calcium-deficient growing rats, 291
Cooper, C., Mclaren, M., Wood, P.J., Coulton, L. and Kanis, J.A. Indices of calcium metabolism in women with hip fractures, 193
Coulton, L., see Cooper, C., 193
Cox, K.A., see Glowacki, J., 271

Deftos, L.J., Miller, M.M. and Burton, D.W. A high-fat diet increases calcitonin secretion in the rat, 303

Ek-Rylander, B., Marks, S.C. Jr., Hammarström, L.E. and Andersson, G.N. Osteoclastic acid ATPase: biochemical and histochemical studies of the osteopetrotic mutations in the rat, 309
Elders, P.J.M., Netelenbos, J.C., Lips, P., van Ginkel, F.C. and van der Stelt, P.F. Accelerated vertebral bone loss in relation to the menopause: a cross-sectional study on lumbar bone density in 286 women of 46 to 55 years of age, 11

Fausto, A., see Tabuchi, C., 359
Francis, R.M., Peacock, M., Marshall, D.H., Horsman, A. and Aaron, J.E. Spinal osteoporosis in men, 347
Fredholm, B.B., see Lerner, U.H., 169
Fujita, T., see Hishikawa, R., 99
Fukase, M., see Hishikawa, R., 99

Gallagher, J.C., see Hedlund, L.R., 59
Geddes, K.M., see Pittard, W.B., III, 69
Glowacki, J., Cox, K.A. and Wilcon, S. Impaired osteoclast differentiation in subcutaneous implants of bone particles in osteopetrotic mutants, 271
Grynpas, M.D. and Cheng, P.-T. Fluoride reduces the rate of dissolution of bone, 1
Guiraud, R., see Ribot, C., 89

Hammarström, L.E., see Ek-Rylander, B., 309
Harris, M., see Sandy, J.R., 155
Harvey, W., see Sandy, J.R., 155
Hedlund, L.R. and Gallagher, J.C. Vertebral morphometry in diagnosis of spinal fractures, 59
Hewison, M., Barker, S., Katz, D.R. and O'Riordan, J.L.H., Modulation of myelomonocytic U937 cells by vitamin D metabolites, 323
Hishikawa, R., Fukase, M., Yoshimoto, Y.,

Imai, Y., Okada, S. and Fujita, T. A case of membranous lipodystrophy complicated by Fanconi's syndrome, 99
Hodsman, A.B. Effects of cyclical therapy for osteoporosis using an oral regimen of inorganic phosphate and sodium etidronate: a clinical and bone histomorphometric study, 201
Hollis, B.W., see Pittard, W.B., III, 69
Horowitz, M., see Nordin, B.E.C., 21
Horsman, A., see Francis, R.M., 347

Imai, Y., see Hishikawa, R., 99

Johansen, J.S., see Pødenphant, J., 77

Kanis, J.A., see Cooper, C., 193
Katsuyama, N., see Norimatsu, H., 213
Katz, D.R., see Hewison, M., 323
Kurose, H., Seino, Y., Yamaoka, K., Tanaka, H., Shima, M. and Yabuuchi, H. Cooperation of synthetic insulin-like growth factor I/somatomedin C and 1,25-dihydroxyvitamin D_3 on regulation of function in clonal osteoblastic cells, 335

Lerner, U.H., Ransjö, M. and Ljunggren, Ö. Bradykinin stimulates production of prostaglandin E_2 and prostacyclin in murine osteoblasts, 139
Lerner, U.H., Ransjö, M., Sahlberg, K., Ljunggren, Ö. and Fredholm, B.B. Forskolin sensitizes parathyroid hormone-induced cyclic AMP response, but not the bone resorptive effect, in mouse calvarial bones, 169
Leth, A., see Pødenphant, J., 77
Lindegreen, P., see Mosekilde, L., 279
Lips, P., see Elders, P.J.M., 11
Ljunggren, Ö., see Lerner, U.H., 139
Ljunggren, Ö., see Lerner, U.H., 169
Louvet, J.P., see Ribot, C., 89

Marks, S.C. Jr., see Ek-Rylander, B., 309
Marshall, D.H., see Francis, R.M., 347
Mclaren, M., see Cooper, C., 193
Meghji, S., see Sandy, J.R., 155
Meikle, M.C., see Sandy, J.R., 155
Miller, M.M., see Deftos, L.J., 303
Mori, S., see Norimatsu, H., 213
Mosekilde, L., Charles, P. and Lindegreen, P. Determinants for serum 1,25-dihydroxycholecalciferol in primary hyperparathyroidism, 279

Need, A.G., see Nordin, B.E.C., 21
Netelenbos, J.C., see Elders, P.J.M., 11
Nordin, B.E.C., Wishart, J.M., Horowitz, M., Need, A.G., Bridges, A. and Bellon, M. The relationship between forearm and vertebral mineral density and fractures in postmenopausal women, 21
Norimatsu, H., Mori, S., Uesato, T., Yoshikawa, T. and Katsuyama, N. Bone mineral density of the spine and proximal femur in normal and osteoporotic subjects in Japan, 213

Okada, S., see Hishikawa, R., 99
O'Riordan, J.L.H., see Hewison, M., 323

Papapoulos, S.E., see Valkema, R., 183
Pauwels, E.K.J., see Valkema, R., 183
Peacock, M., see Francis, R.M., 347
Pittard, W.B., III, Geddes, K.M. and Hollis, B.W. Correlation of bone mineralization in the radius and humerus of well premature neonates over the first 4 months of life, 69
Pødenphant, J., Riis, B.J., Johansen, J.S., Leth, A. and Christiansen, C. Iliac crest biopsy in longitudinal therapeutic trials of osteoporosis, 77
Pouilles, J.M., see Ribot, C., 89

Ramp, W.K., Baker, R.L. and Trinkle, L.S. Interrelationships of vitamin D, bone metabolism and blood calcium concentration in the chick, 117
Ransjö, M., see Lerner, U.H., 139
Ransjö, M., see Lerner, U.H., 169
Rasmussen, H. The messenger function of Ca^{2+}: from PTH action to smooth muscle contraction, 233
Relfson, M., see Schneider, G.B., 129
Ribot, C., Tremollieres, F., Pouilles, J.M., Louvet, J.P. and Guiraud, R. Influence of the menopause and aging on spinal density in French women, 89
Riis, B.J., see Pødenphant, J., 77
Ross, P.D., see Vogel, J.M., 35

Sahlberg, K., see Lerner, U.H., 169
Sandy, J.R., Meghji, S., Scutt, A.M., Harvey, W., Harris, M. and Meikle, M.C. Murine osteoblasts release bone-resorbing factors of high and low molecular weights: stimulation by mechanical deformation, 155

Schlaeger, D., see VandePol, C., 371
Schneider, G.B. and Relfson, M. Pluripotent hemopoietic stem cells give rise to osteoclasts in vitro: effects of rGM-CSF, 129
Scutt, A.M., see Sandy, J.R., 155
Seino, Y., see Kurose, H., 335
Shima, M., see Kurose, H., 335
Simmons, D.J., see Tabuchi, C., 359

Tabuchi, C., Simmons, D.J., Fausto, A., Binderman, I. and Avioli, L.V. Effect of dihydrotachysterol on bone induction in ovariectomized rats, 359
Tanaka, H., see Kurose, H., 335
Toverud, S.U., see Clark, S.A., 291
Tremollieres, F., see Ribot, C., 89
Trinkle, L.S., see Ramp, W.K., 117

Uesato, T., see Norimatsu, H., 213

Valkema, R., Vismans, F.-J.E., Papapoulos, S.E., Pauwels, E.K.J. and Bijvoet, O.L.M. Maintained improvement in calcium balance and bone mineral content in patients with osteoporosis treated with the bisphosphonate APD, 183
van der Stelt, P.F., see Elders, P.J.M., 11
van Ginkel, F.C., see Elders, P.J.M., 11
VandePol, C., Schlaeger, D. and Wong, G.L. Mitogenic responses to and binding of insulin-like growth factor 1 and/or epidermal growth factor by bone cells, 371
Vismans, F.-J.E., see Valkema, R., 183
Vogel, J.M., Wasnich, R.D. and Ross, P.D. The clinical relevance of calcaneus bone mineral measurements: a review, 35

Wasnich, R.D., see Vogel, J.M., 35
Wilcon, S., see Glowacki, J., 271
Wishart, J.M., see Nordin, B.E.C., 21
Wong, G.L., see VandePol, C., 371
Wood, P.J., see Cooper, C., 193

Yabuuchi, H., see Kurose, H., 335
Yamaoka, K., see Kurose, H., 335
Yoshikawa, T., see Norimatsu, H., 213
Yoshimoto, Y., see Hishikawa, R., 99

Subject Index

Acid ATPase, 309
Acid phosphatase, 309
Aging, 89
Alkaline phosphatase, 335, 359
Apatite, 1

Bisphosphonate, 183
Body weight, 291
Bone, 1, 117, 139, 169
Bone ash, 291
Bone densitometry, 89
Bone histomorphometry, 201
Bone loss, models of, 11
Bone mass, 11
Bone mass change, 11
Bone mineral, 183
Bone mineral content, 35, 69
Bone mineral density, 213
Bone morphogenetic protein, 359
Bone particles, subcutaneous implants of, 271
Bone resorption, 1, 129, 155, 309
Bone width, 69
Bradykinin, 139

Ca^{2+}, messenger function, 233
Calcaneus, 35
Calcitonin secretion, 291
Calcium, 249
Calcium deficiency, 291
Calcium metabolism, 193
Cell calcium metabolism, 233
Collagen synthesis, 335
Colony stimulating factor, 129
Continuous stress, 155
Cyclic AMP, 169
Cyclical therapy, 201

Demineralized bone, 359
Densitometry, 35
Differentiation, 323

$1,25(OH)_2D_3$, 323, 335
$1,25(OH)_2D_3$ receptor, 323
$24,25(OH)_2D_3$, 323
Dihydrotachysterol, 359
Diphosphonate, 201
Dissolution rate, 1
Dual photon absorptiometry, 89, 183, 213

Epidermal growth factor, 371
Estrogen, 89

Fanconi's syndrome, 99
Femoral neck fracture, 193
Fluoride, 1
Forskolin, 169
Fracture risk, 35
Fracture threshold, 213
Fracture, peripheral and vertebral, 21

Glucose diet, 291
Growth, 291

Hemopoietic stem cell, 129
Homeostasis, 117
Humerus, 69
1,α-Hydroxylase, 259
25-Hydroxyvitamin D, 193
Hypocalcemia, 117

IGF-I, 335
Iliac crest biopsy, 77
Insulin-like growth factor 1, 371
Intermittent stress, 155
Ion release, 117

Magnesium, 249
MC3T3-E1 cell, 335
Mechanical deformation, 155
Membranous lipodystrophy, 99
Menopause, 11, 89

Mineral density, forearm, vertebral, 21
Morphometry, 59
Multiple cystic bone lesion, 99
Myelomonocytic cell, 323

Neonate, 69

Obesity, 303
Organ culture, 117
Osteoblast, 139, 155
Osteocalcin, 193
Osteoclast, 129, 309
Osteoclast differentiation, 271
Osteoinduction, 359
Osteopetrosis, 309
Osteopetrotic mutants, 271
Osteoporosis, 35, 59, 77, 183, 201, 213
Osteoporosis, in men, 347
    age, 347
    biochemistry, 347
    bone histology, 347
Ovariectomy, 359

Parathyroid hormone, 169
Phosphate, 201
Plasma $1,25(OH)_2D_3$, 291
Plasma calcium, 291
Plasma membrane transducers, 233
Postmenopausal women, 21
Primary hyperparathyroidism, 279
Prostaglandin, 139
PTH action, 233
PTH secretion, 249

Radius, 69
Rat, 309
Renal function, 279

Serum 1,25-dihydroxyvitamin D_3, 279
Serum 25-dihydroxyvitamin D_3, 279
Smooth muscle contraction, 233
Synergistic action, 335

Therapeutic trial, longitudinal, 77

Vertebral fracture, 59
Vitamin D, 117
Vitamin D deficiency, 291
Vitamin D metabolism, 259

Wheat diet, 291